

WOLBRAND et al
Serial No. 09/870,945

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LISTING OF THE CLAIMS:

The following is a listing of all claims (none of which are amended herein):

1. (Original) A method of managing traffic for transport on an Asynchronous Transfer Mode (ATM) virtual path (VP), the method comprising:

forming an AAL2 path group which comprises plural AAL2 paths;
admitting connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path;
including, for transport on the virtual path (VP), ATM cells of a second type other than a first type of ATM cells which comprise the AAL2 path group.

2. (Original) The method of claim 1, wherein the first type of ATM cells comprises AAL2 traffic cells and the second type of ATM cells comprises cells dedicated to at least one of signaling, operation and maintenance, and synchronization.

3. (Original) The method of claim 1, wherein the second type of ATM cells comprises cells which require a guaranteed bandwidth.

4. (Original) The method of claim 1, wherein the first type of ATM cells comprises AAL2 cells and the second type of ATM cells comprises non-AAL2 cells.

5. (Original) The method of claim 1, wherein the first type of ATM cells comprises AAL2 cells from AAL2 paths with differing QoS classes.

6. (Original) The method of claim 5, wherein the first type of ATM cells comprises AAL2 cells having an unspecified bit rate (UBR) and the second type of ATM cells comprises AAL2 cells have a bit rate type other than UBR.

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7. (Original) The method of claim 1, wherein a given one of the AAL2 paths carries AAL2 cells having a same Quality of Service (QoS) requirement.

8. (Original) The method of claim 1, further comprising allocating more delay-sensitive traffic to a different AAL2 path than less delay-sensitive traffic.

9. (Original) The method of claim 1, further comprising providing differing treatment for differing AAL2 connections within the AAL2 path group based on the QoS requirements for the differing AAL2 connections.

10. (Original) The method of claim 1, further comprising providing a greater weighting or priority for more delay sensitive AAL2 connections.

11. (Original) A node of an Asynchronous Transfer Mode (ATM) comprising:
a plurality of AAL2 paths which together form an AAL2 path group wherein a connection being admitted to one of the AAL2 paths of the AAL2 path group is based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path;

a path group scheduler which selects ATM AAL2 cells from the plurality of AAL2 paths;

a non-path group ATM virtual circuit (VC) which includes ATM cells of a second type other than the ATM cells of a first type which comprise the AAL2 path group;

a scheduler which applies ATM cells of the path group and the non-path group ATM virtual circuit (VC) to an ATM virtual path (VP) for transmission to another node of the network.

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12. (Original) The apparatus of claim 11, further comprising a connection admission controller unit which admits connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path.

13. (Original) The apparatus of claim 11, wherein the first type of ATM cells comprises AAL2 traffic cells and the second type of ATM cells comprises cells dedicated to at least one of signaling, operation and maintenance, and synchronization.

14. (Original) The apparatus of claim 11, wherein the second type of ATM cells comprises cells which require a guaranteed bandwidth.

15. (Original) The apparatus of claim 11, wherein the first type of ATM cells comprises AAL2 cells and the second type of ATM cells comprises non-AAL2 cells.

16. (Original) The apparatus of claim 11, wherein the first type of ATM cells comprises AAL2 cells from AAL2 paths with differing QoS classes.

17. (Original) The apparatus of claim 15, wherein the first type of ATM cells comprises AAL2 cells having an unspecified bit rate (UBR) and the second type of ATM cells comprises AAL2 cells have a bit rate type other than UBR.

18. (Original) The apparatus of claim 11, wherein a given one of the AAL2 paths carries AAL2 cells having a same Quality of Service (QoS) requirement.

19. (Original) The apparatus of claim 11, further comprising allocating more delay-sensitive traffic to a different AAL2 path than less delay-sensitive traffic.

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20. (Original) The apparatus of claim 11, wherein the path group scheduler is a weighted fair queuing scheduler.

21. (Original) The apparatus of claim 11, wherein the path group scheduler is a strict priority scheduler.

22. (Original) The apparatus of claim 11, further comprising means for providing differing treatment for differing AAL2 connections within the AAL2 path group based on the QoS requirements for the differing AAL2 connections.

23. (Original) The apparatus of claim 22, further comprising means for providing a greater weighting or priority for more delay sensitive AAL2 connections.

24. (Original) An Asynchronous Transfer Mode (ATM) network comprising:
a first network node;
a second network node;
an ATM virtual path (VP) connecting the first network node and the second network node;
wherein the first network node comprises:
a plurality of AAL2 paths which together form an AAL2 path group wherein a connection being admitted to one of the AAL2 paths of the AAL2 path group is based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path;
a path group scheduler which selects ATM AAL2 cells from the plurality of AAL2 paths;
a non-path group ATM virtual circuit (VC) which contains ATM cells of a second type other than ATM cells of a first type which comprise the AAL2 path group;

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a scheduler which applies ATM cells of the path group and the non-path group ATM virtual circuit (VC) to the ATM virtual path (VP) for transmission to the second network node.

25. (Original) The apparatus of claim 24, further comprising a connection admission controller unit which admits connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path.

26. (Original) The apparatus of claim 25, wherein the connection admission controller unit is situated at the first network node.

27. (Original) The apparatus of claim 25, wherein the connection admission controller unit is situated at the second network node.

28. (Original) The apparatus of claim 24, wherein the first type of ATM cells comprises AAL2 traffic cells and the second type of ATM cells comprises cells dedicated to at least one of signaling, operation and maintenance, and synchronization.

29. (Original) The apparatus of claim 24, wherein the second type of ATM cells comprises cells which require a guaranteed bandwidth.

30. (Original) The apparatus of claim 24, wherein the first type of ATM cells comprises AAL2 cells and the second type of ATM cells comprises non-AAL2 cells.

31. (Original) The apparatus of claim 24, wherein the first type of ATM cells comprises AAL2 cells having a first bit rate type and the second type of ATM cells comprises AAL2 cells having a second bit rate type.

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32. (Original) The apparatus of claim 31, wherein the first type of ATM cells comprises AAL2 from AAL2 paths with differing QoS classes.

33. (Original) The apparatus of claim 24, wherein a given one of the AAL2 paths carries AAL2 cells having a same Quality of Service (QoS) requirement.

34. (Original) The apparatus of claim 24, further comprising allocating more delay-sensitive traffic to a different AAL2 path than less delay-sensitive traffic.

35. (Original) The apparatus of claim 24, wherein one of the first network node and the second network node is a base station node.

36. (Original) The apparatus of claim 24, wherein the one of the first network node and the second network node is a radio network controller node.

37. (Original) The apparatus of claim 24, wherein the path group scheduler is a weighted fair queuing scheduler.

38. (Original) The apparatus of claim 24, wherein the path group scheduler is a strict priority scheduler.

39. (Original) The apparatus of claim 24, further comprising means for providing differing treatment for differing AAL2 connections within the AAL2 path group based on the QoS requirements for the differing AAL2 connections.

40. (Original) The apparatus of claim 39, further comprising means for providing a greater weighting or priority for more delay sensitive AAL2 connections.

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41. (Original) Apparatus for managing traffic for transport on an Asynchronous Transfer Mode (ATM) virtual path (VP), the method comprising:

means for forming an AAL2 path group which comprises plural AAL2 paths;
means for admitting connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path;
means for including, for transport on the virtual path (VP), ATM cells of a second type other than a first type of ATM cells which comprise the AAL2 path group.

42. (Original) The apparatus of claim 41, wherein the first type of ATM cells comprises AAL2 traffic cells and the second type of ATM cells comprises cells dedicated to at least one of signaling, operation and maintenance, and synchronization.

43. (Original) The apparatus of claim 41, wherein the second type of ATM cells comprises cells which require a guaranteed bandwidth.

44. (Original) The apparatus of claim 41, wherein the first type of ATM cells comprises AAL2 cells and the second type of ATM cells comprises non-AAL2 cells.

45. (Original) The apparatus of claim 41, wherein the first type of ATM cells comprises AAL2 cells from AAL2 paths with differing QoS classes.

46. (Original) The apparatus of claim 45, wherein the first type of ATM cells comprises AAL2 cells having an unspecified bit rate (UBR) and the second type of ATM cells comprises AAL2 cells have a bit rate type other than UBR.

47. (Original) The apparatus of claim 41, wherein a given one of the AAL2 paths carries AAL2 cells having a same Quality of Service (QoS) requirement.

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48. (Original) The apparatus of claim 41, further comprising allocating more delay-sensitive traffic to a different AAL2 path than less delay-sensitive traffic.

49. (Original) The apparatus of claim 41, further comprising means for providing differing treatment for differing AAL2 connections within the AAL2 path group based on the QoS requirements for the differing AAL2 connections.

50. (Original) The apparatus of claim 49, further comprising means for providing a greater weighting or priority for more delay sensitive AAL2 connections.